

Attorney Docket No. P30635

Application No.: 10/599,435

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Applicant(s) : Daisuke SHOJI et al.

Group Art Unit: 3738

Appln. No. : 10/599,435
(U.S. National Phase of PCT/JP2005/005271)

Examiner: Not yet known

I.A Filed : March 23, 2005

Confirmation No.: 8794

For : METHOD FOR CONTROLLING AVERAGE PORE DIAMETER OF
POROUS BODY COMPRISING APATITE/COLLAGEN COMPOSITE
FIBERS

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
U.S. Patent and Trademark Office
Customer Service Window, Mail Stop AMENDMENT
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

Pursuant to 37 C.F.R. § 1.56 and 37 C.F.R. §§ 1.97-1.98, Applicants hereby direct the Examiner's attention to the following information, which includes documents cited in the International Search Report for International Application PCT/JP2005/005271, of which the above-referenced application is a National Stage:

KIKUCHI, M. et al., "Porous Body Preparation of Hydroxyapatite/Collagen Nanocomposites for Bone Tissue Regeneration," Key Engineering Materials, Vols. 254-256, pp. 561-564 (2004); Applicants note that the Search Report indicates a publication date of 2003 (December 24, 2003);

JP 11-513590 A1, November 24, 1999;

U.S. Patent No. 5,776,193 (KWAN et al.), July 7, 1998; Applicants note that this document is a U.S. family member of JP 11-513590 A1;

JP 02-265935 A1, October 30, 1990, accompanied by an English language translation thereof;

WO 03/092759 A1, November 13, 2003;

U.S. Patent Application Publication No. 2005/0004242 A1 (SOTOME et al.), January 6, 2005; Applicants note that this application is identified on esp@cenet as a family member of WO 03/092759;

GELINSKY, M. et al., "Porous Scaffolds Made From Mineralized Collagen – A Biomimetic Bone Graft Material," Materialwissenschaft und Werkstofftechnik, Vol. 35, No. 4, pp. 229-233 (2004), including an English language abstract;

WO 2004/041320 A1 (PCT/JP03/13717), May 21, 2004, including an English language abstract; and

U.S. Patent Application Publication No. 2005/0271695 A1(KIKUCHI et al.), December 8, 2005; Applicants note that this is a continuation-in-part of PCT/JP03/13717, which published as WO 2004/041320.

Applicants further direct the Examiner's attention to the following documents:

TATEISHI, T. et al., "Biodegradable Porous Scaffolds for Tissue Engineering," Journal of Artificial Organs, Vol. 5, pp. 77-83 (2002);

KANG, H. et al., "Fabrication of Porous Gelatin Scaffolds for Tissue Engineering," Biomaterials, Vol. 20, pp. 1339-1344 (1999);

von HEIMBURG, D. et al., "Human Preadipocytes Seeded on Freeze-Dried Collagen Scaffolds Investigated in Vitro and in Vivo," Biomaterials, Vol. 22, pp. 429-438 (2001).

Applicants further direct the Examiner's attention to the commonly assigned applications:

U.S. Patent Application No. 10/558,245 (KAWAMURA et al.), filed May 26, 2004, which published as US 2006/0292350 A1 on December 28, 2006; Applicants note that this document is the National Stage of PCT/JP04/07169 which was published as WO 04/103422 on December 2, 2004; and

U.S. Patent Application No. 11/123,203 (KIKUCHI et al.), filed on May 6, 2005, which published as 2005/0271695 on December 8, 2005 and issued as U.S. Patent No. 7,153,938 B2 on December 26, 2006.

Furthermore, Applicants direct the Examiner's attention to the following documents which were made of record in the above commonly assigned applications:

U.S. Patent No. 4,969,913 (OJIMA), November 13, 1990;

U.S. Patent No. 5,017,518 (HIRAYAMA et al.), May 21, 1991;

U.S. Patent No. 5,064,436 (OGISO et al.), November 12, 1991;

U.S. Patent No. 5,082,803 (SUMITA), January 21, 1992;

U.S. Patent No. 5,089,195 (ICHITSUKA et al.), February 18, 1992;

U.S. Patent No. 5,171,720 (KAWAKAMI), December 15, 1992;

JP 2-167868, June 28, 1990; Applicants note that this is a family member of U.S. Patent No. 5,171,720;

U.S. Patent No. 6,187,046 B1 (YAMAMOTO et al.), February 13, 2001;

U.S. Patent No. 6,187,047 B1 (KWAN et al.), February 13, 2001;
U.S. Patent No. 6,203,574 B1 (KAWAMURA), March 20, 2001;
U.S. Patent No. 6,733,528 B2 (ABE et al.), May 11, 2004;
U.S. Patent No. 6,764,517 B2 (YAMAMOTO et al.), July 20, 2004;
U.S. Patent No. 6,902,584 B2 (KWAN et al.), June 7, 2005;
U.S. Patent No. 6,541,023 B1 (ANDRE et al.), April 1, 2003;
U.S. Patent No. 5,215,941 (YASUKAWA et al.), June 1, 1993;
U.S. Patent No. 4,795,467 (PIEZ et al.), January 3, 1989;
U.S. Patent Application Publication No. 2004/0220680 A1 (YAMAMOTO et al.),
November 4, 2004;
U.S. Patent Application Publication No. 2004/0096475 A1 (HIRAIDE et al.), May 20,
2004;
JP 2002-200085 A1, July 16, 2002; Applicants note that this is a family member of
U.S. Patent Publication No. 2004/0096475;
U.S. Patent Application Publication No. 2006/0013894 A1 (YAMAMOTO et al.),
January 19, 2006;
JP 2004-205961 A1, July 22, 2004; Applicants note that this is a family member of U.S.
Patent Publication No. 2006/0013894;
JP 8-48583, February 20, 1996;
EP 1155705 A2, November 21, 2001;
JP 3048289 B2, March 24, 2000, accompanied by a machine English language translation
thereof;

JP 06-304242 A1, November 1, 1994, accompanied by a machine English language translation thereof;

JP 11-192081 A1, July 21, 1999, accompanied by a machine English language translation thereof;

JP 2003-190271 A1, July 8, 2003, accompanied by a machine English language translation thereof;

WO 97/14376 A1, April 24, 1997; Applicants note that this application is identified on esp@cenet as a family member of U.S. Patent No. 5,776,193, U.S. Patent No. 6,187,047, and JP 11-513590.

WO 01/92322 A1, December 6, 2001, including an English language abstract;

JP 61-079463 A1, April 23, 1986;

JP 2002-102328 A1, April 9, 2002;

WO 2004/103422 A1, December 2, 2004;

JP 7-101708 A1, April 18, 1995, accompanied by an English language abstract thereof;

JP 11-199209 A1, July 27, 1999, accompanied by an English language abstract thereof;

JP 2000-005298 A1, January 11, 2000, accompanied by an English language abstract thereof;

KATO, R et al., "Preparation of Hydroxyapatite Ceramics with One-Dimensional Pores Using Freeze-dry Process," Dai 6 Kai Seitai Kanren Ceramics Toronkai Koen Yokosyu, p. 22 (2002), accompanied by an English language abstract; and

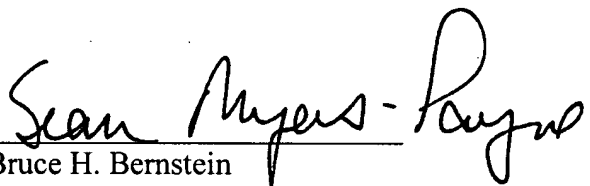
CHANG et al., "Preparation of A Porous Hydroxyapatite/Collagen Nanocomposite Using Glutaraldehyde as A Crosslinking Agent," J. Mat. Sci. Let., Vol. 20, No. 13, pp. 1199-1201 (2001).

In accordance with 37 C.F.R. 1.98, copies of the U.S. patents, U.S. published patent applications, and U.S. patent applications are not enclosed herewith. However, if any copies are needed, the Examiner is respectfully requested to contact the undersigned. Copies of the International Search Report (in English and Japanese) were enclosed with the papers when entering the National Stage on September 28, 2006. However, Applicants enclose herewith another copy of the International Search Report (in English) for the Examiner's review.

In accordance with 37 C.F.R. 1.97(b)(1), this Information Disclosure Statement is filed within three months of the filing date of the application. Accordingly, no fees are required.

Should there be any questions, the Examiner is invited to contact the undersigned at the below listed telephone number.

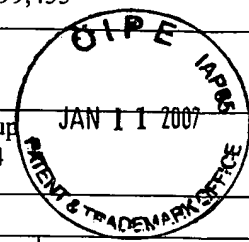
Respectfully submitted,
Daisuke SHOJI et al.


Bruce H. Bernstein
Reg. No. 29,027

42,920

January 10, 2007
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191

FORM PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. P30635	Application No. 10/599,435
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant Daisuke SHOJI et al.	
		Filing Date I.A. Filed March 23, 2005	Group 8794



U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5 7 7 6 1 9 3	07/07/98	KWAN et al.			
	2005 /	0 0 0 4 2 4 2	01/06/05	SOTOME et al.			
	2005 /	0 2 7 1 6 9 5	12/08/05	KIKUCHI et al.			
	2006 /	0 2 9 2 3 5 0	12/28/06	KAWAMURA et al.			
		7 1 5 3 9 3 8	12/26/06	KIKUCHI et al.			
		4 9 6 9 9 1 3	11/13/90	OJIMA			
		5 0 1 7 5 1 8	05/21/91	HIRAYAMA et al.			
		5 0 6 4 4 3 6	11/12/91	OGISO et al.			
		5 0 8 2 8 0 3	01/21/92	SUMITA			
		5 0 8 9 1 9 5	02/18/92	ICHITSUKA et al.			
		5 1 7 1 7 2 0	12/15/92	KAWAKAMI			
		6 1 8 7 0 4 6	02/13/01	YAMAMOTO et al.			
		6 1 8 7 0 4 7	02/13/01	KWAN et al.			
		6 2 0 3 5 7 4	03/20/01	KAWAMURA			
		6 7 3 3 5 2 8	05/11/04	ABE et al.			
		6 7 6 4 5 1 7	07/20/04	YAMAMOTO et al.			
		6 9 0 2 5 8 4	06/07/05	KWAN et al.			
		6 5 4 1 0 2 3	04/01/03	ANDRE et al.			
		5 2 1 5 9 4 1	06/01/93	YASUKAWA et al.			
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	2004	0 0 9 6 4 7 5	05/20/04	HIRAIDA et al.			

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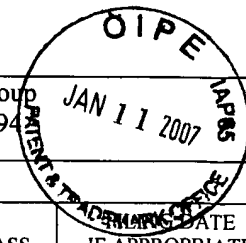
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	0 3	/ 0 9 2 7 5 9	11/13/03	W.I.P.O.			
	2 0 0 4	/ 0 4 1 3 2 0	05/21/04	W.I.P.O.			
	2	- 1 6 7 8 6 8	02/13/01	JAPAN			

EXAMINER

DATE CONSIDERED

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	Applicant Daisuke SHOJI et al.		
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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	NO
	2004	- 1 0 3 4 2 2	12/02/04	W.I.P.O				
	2002	- 2 0 0 0 8 5	07/16/02	JAPAN				
	2004	- 2 0 5 9 6 1	07/22/04	JAPAN				
	8	- 4 8 5 8 3	02/20/96	JAPAN				
		1 1 5 5 7 0 5	11/21/01	E.P.O				
		3 0 4 8 2 8 9	03/24/00	JAPAN			X	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

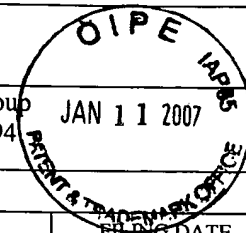
	1	KIKUCHI, M. et al., "Porous Body Preparation of Hydroxyapatite/Collagen Nanocomposites for Bone Tissue Regeneration," <u>Key Engineering Materials</u> , Vols. 254-256, pp. 561-564 (2004)
	2	GELINSKY, M. et al., "Porous Scaffolds Made From Mineralized Collagen – A Biomimetic Bone Graft Material," <u>Materialwissenschaft und Werkstofftechnik</u> , Vol. 35, No. 4, pp. 229-233 (2004).
	3	TATEISHI, T. et al., "Biodegradable Porous Scaffolds for Tissue Engineering," <u>Journal of Artificial Organs</u> , Vol. 5, pp. 77-83 (2002);
	4	KANG, H. et al., "Fabrication of Porous Gelatin Scaffolds for Tissue Engineering," <u>Biomaterials</u> , Vol. 20, pp. 1339-1344 (1999).
	5	von HEIMBURG, D. et al., "Human Preadipocytes Seeded on Freeze-Dried Collagen Scaffolds Investigated in Vitro and in Vivo," <u>Biomaterials</u> , Vol. 22, pp. 429-438 (2001).
	6	KATO, R et al., "Preparation of Hydroxyapatite Ceramics with One-Dimensional Pores Using Freeze-dry Process," Dai 6 Kai Seitai Kanren Ceramics Toronkai Koen Yokosyu, p. 22 (2002).
	7	CHANG et al., "Preparation of A Porous Hydroxyapatite/Collagen Nanocomposite Using Glutaraldehyde as A Crosslinking Agent," J. Mat. Sci. Let., Vol. 20, No. 13, pp. 1199-1201 (2001).
	8	English language Abstract of WO 01/92322.
	9	English language Abstract of JP 7-101708.
	10	English language Abstract of JP 11-199209.
	11	English language Abstract of JP 2000-005298.

EXAMINER

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FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Atty. Docket No. P30635	Application No. 10/599,435
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FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	06	- 3 0 4 2 4 2	11/01/94	JAPAN			X
	11	- 1 9 2 0 8 1	07/21/99	JAPAN			X
	2003	- 1 9 0 2 7 1	07/08/03	JAPAN			X
	97	/ 1 4 3 7 6	04/24/97	W.I.P.O			
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	61	- 0 7 9 4 6 3	04/23/86	JAPAN			
	2002	- 1 0 2 3 2 8	04/09/02	JAPAN			
	2004	/ 1 0 3 4 2 2	12/02/04	W.I.P.O			
	7	- 1 0 1 7 0 8	04/18/95	JAPAN			
	11	- 1 9 9 2 0 9	07/27/99	JAPAN			
	2000	- 0 0 5 2 9 8	01/11/00	JAPAN			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
12	English language Abstract of JP 2000-005298.	
13	English language Abstract of JP 11-192081.	
14	English language Abstract of JP 2003-190271.	

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